

CHAPTER 52
CRITERIA AND CONDITIONS FOR AUTHORIZING WITHDRAWAL,
DIVERSION AND STORAGE OF WATER

[Prior to 12/3/86, Water, Air and Waste Management[900]]

567—52.1(455B) Scope of chapter. This chapter contains criteria for issuance of water permits, permit conditions, and conditions under which the department may modify, cancel, or suspend permits. This chapter includes special criteria applicable to particular types of water uses such as irrigation, and criteria applicable to particular types of sources of water such as streams and groundwater sources.

567—52.2(455B) Conditions on permitted water uses. This rule includes permit restrictions which apply to various types of permitted water uses. A permitted use may be subject to additional restrictions related to its potential effects on surface or groundwater. Requirements and restrictions which relate to particular types of water sources are found in rules 52.3(455B), 52.4(455B), 52.6(455B), 567—53.6(455B) and 567—53.7(455B). Procedures for determining conditions imposed due to well interference are found in rule 567—54.7(455B).

52.2(1) Irrigation permits.

a. Authorized irrigation season. Permits shall authorize irrigation of general farm crops such as row crops, small grain and hay from April 1 to September 30 and specialty crops such as vegetables, fruits, and sod from April 1 to October 31 unless the department finds that a different period is justified.

b. Authorized annual amount. Permits shall authorize withdrawals equivalent to 12 acre-inches per acre for general farm crops and 24 acre-inches per acre for specialty crops unless the department finds that a different amount is justified. Factors to be considered in determining whether a different amount is justified include soil types and potential water availability during drought events. Notwithstanding the general criteria in this paragraph, permits for irrigation of general farm crops from the alluvial aquifers of the Missouri and Mississippi Rivers shall authorize withdrawals of up to 18 acre-inches per acre if requested by the applicant unless the department finds that a different amount is justified.

c. Conservation plan for erosion control. When 567—subrule 50.6(2) requires that an applicant for an irrigation permit submit a soil conservation plan, any permit granted to the applicant shall make authorization of irrigation contingent upon the permittee's compliance with the soil conservation plan.

d. Irrigation scheduling. The department may require that irrigation of general farm crops be scheduled according to a method recommended by the department to minimize the potential for waste of water or by an equivalent method selected by the permittee and approved by the department.

e. Irrigation system check valve. Each irrigation permit shall require the permittee to submit documentation that an adequate check valve has been installed to prevent back-siphoning of contaminants into the water source before a fertilizer, pesticide, herbicide, or other additive is introduced into the irrigation system.

52.2(2) The amount of water authorized for industrial use or power generation use shall be consistent with industrywide usage for the same or similar purposes and types of facilities and shall provide for growth where need is demonstrated by the applicant.

52.2(3) The amount of water authorized for use by a community public water supply shall not exceed 200 gallons per day per capita except additional water may be provided for growth and industrial use where need is demonstrated by the applicant.

52.2(4) Recreational and aesthetic permits.

a. Authorized amount. The amount of water authorized for recreational and aesthetic uses shall be determined on a case-by-case basis.

b. Watering system backflow-prevention valve. Each permit authorizing the use of water for turf or landscape plantings shall require the permittee to submit documentation that an adequate check valve has been installed to prevent back-siphoning of contaminants into the water source before a fertilizer, pesticide, herbicide or other additive is introduced into the irrigation system.

This rule is intended to implement Iowa Code section 455B.265.

567—52.3(455B) Conditions on withdrawals from streams.

52.3(1) Streams draining less than 50 square miles. Withdrawals of water from streams draining less than 50 square miles shall be subject to the following conditions:

a. *Two hundred gallon per minute (200 gpm) restriction.* New withdrawals of water for consumptive uses shall not be in excess of 200 gallons per minute (200 gpm). Permits in effect on July 5, 1978, that authorize withdrawals in excess of 200 gallons per minute (200 gpm) for consumptive uses, upon renewal, shall not authorize withdrawals in excess of 200 gallons per minute (200 gpm) after December 31, 1988. However, the department may authorize withdrawals in excess of 200 gallons per minute (200 gpm) for storage purposes during high stream flows.

b. *Protected flow restriction.* Except as provided in 52.3(1)“c,” withdrawals for consumptive uses shall cease when the stream flow is below the protected flow designated in rule 52.8(455B). When the flow of a stream, or portion thereof designated by the department, is below a flow equal to the protected flow plus the summation of all permitted consumptive withdrawals by permittees whose permits provide for maintenance of a protected flow in such stream or portion thereof, the department may, subject to the provisions of 52.3(1)“c,” order temporary cessation or rotation of all consumptive withdrawals to ensure that the protected flow is preserved.

c. *Replacement water exemption.* Paragraphs 52.3(1)“a” and “b” shall not apply to withdrawals for consumptive uses from a stream if the permittee discharges replacement water into such stream at rates sufficient to offset the consumptive withdrawals and the department approves the method and location of discharge.

d. *Exemption until July 1, 1991, for certain users.* Paragraphs 52.3(1)“a” and “b” shall not apply until July 1, 1991, to uses that were nonregulated prior to July 1, 1985, provided the application for said permit is postmarked or received prior to July 2, 1986.

52.3(2) Streams draining 50 or more square miles. Withdrawals of water from streams draining 50 or more square miles shall be subject to the following conditions:

a. *Protected flow restriction.* Except as provided in 52.3(2)“b” to 52.3(2)“d,” withdrawals for consumptive uses shall cease when the stream flow is below the protected flow designated in rule 52.8(455B). When the flow of a stream, or portion thereof designated by the department, is below a flow equal to the protected flow plus the summation of all permitted consumptive withdrawals by permittees whose permits provide for maintenance of a protected flow in said stream or portion thereof, the department may, subject to the provisions of 52.3(2)“b” to 52.3(2)“d,” order temporary cessation or rotation of all consumptive withdrawals to ensure that the protected flow is preserved.

b. *Replacement water exemption.* Paragraph 52.3(2)“a” shall not apply to withdrawals for consumptive uses from a stream if the permittee discharges replacement water into such stream or tributary thereto at rates sufficient to offset the consumptive withdrawals and the department approves the method and location of discharge.

c. *Exemption until January 1, 1989, for certain water uses.* Paragraph 52.3(2)“a” shall not apply until January 1, 1989, to withdrawals pursuant to a permit that was in effect on July 5, 1978, and authorized withdrawals for a consumptive use without a condition as of July 5, 1978, for maintenance of a protected flow. Withdrawals pursuant to the renewal of any such permit shall be likewise exempted.

d. Exemption after December 31, 1988, for certain electric generating facility cooling needs. After December 31, 1988, 52.3(2)“a” and 52.4(2)“a” and “b” shall not apply to withdrawals pursuant to a permit that was granted an exemption under 52.3(2)“c” and authorized a consumptive use of water for cooling electrical generating equipment at an electric generating facility or any renewal of such permit, unless the department finds upon the periodic renewal of these permits that: (1) an electrical generating unit requiring a consumptive use of water for cooling purposes has been installed after July 5, 1978, at the electric generating facility associated with the permit; or (2) the construction of an electrical generating unit requiring a consumptive use of water for cooling purposes was commenced after July 5, 1978, at another electric generating facility owned in whole or part by the permittee, for which facility replacement water is provided because of the restrictions imposed by 52.3(2)“a” or 52.3(2)“b” and additional replacement water is reasonably available from the source of such replacement water to satisfy the consumptive use at the generating facility site associated with the permit; or (3) the permittee, when replacing after July 5, 1978, any major component of the cooling system (including cooling towers) at the electric generating facility, increases the facility’s consumptive use of water; or (4) the consumptive use of water for cooling electric generation equipment at the electric generating facility is less beneficial to the interests of the public than are other specific beneficial uses that are adversely affected by such a consumptive use when considerations of the public health, safety, and welfare are balanced.

e. Exemption until July 1, 1991, for certain users. Paragraph 52.3(2)“a” shall not apply until July 1, 1991, to uses that were nonregulated prior to July 1, 1985, provided the application for said permit is postmarked or received prior to July 2, 1986.

567—52.4(455B) Conditions on withdrawals from groundwater sources.

52.4(1) *Withdrawals from unconsolidated aquifers adjacent to streams draining less than 50 square miles.* Withdrawals of water from unconsolidated aquifers adjacent to streams draining less than 50 square miles shall be subject to the following conditions:

a. Two hundred gallon per minute (200 gpm) restriction. New withdrawals for a consumptive use at any location within ¼ mile (1320 feet) of a stream shall not be in excess of 200 gallons per minute (200 gpm), except when the applicant can conclusively demonstrate by conducting appropriate tests that withdrawals in excess of 200 gallons per minute (200 gpm) will not reduce the flow of the stream. Permits in effect on July 5, 1978, that authorize withdrawals in excess of 200 gallons per minute (200 gpm) for consumptive uses at such locations, upon renewal, shall not authorize withdrawals in excess of 200 gallons per minute (200 gpm) after December 31, 1988. However, the department may authorize withdrawals in excess of 200 gallons per minute (200 gpm) for storage purposes during high stream flows.

b. Protected flow restriction. Except as provided in 52.4(1)“c” and 52.4(1)“e,” withdrawals for consumptive uses at any point within 1/8 mile (660 feet) of a stream shall be considered withdrawals from the stream and shall cease when the stream is below the protected flow designated in rule 52.8(455B), unless the applicant or permittee can conclusively demonstrate by conducting appropriate tests that the withdrawal will not reduce the flow of the stream. This protected flow restriction shall not apply until January 1, 1989, to withdrawals pursuant to a permit that was in effect on July 5, 1978, and authorized withdrawals for a consumptive use without a condition as of July 5, 1978, for maintenance of a protected flow. Withdrawals pursuant to the renewal of any such permit shall be likewise exempted.

c. *Border stream-interior stream confluence restriction.* Withdrawals for consumptive uses from the alluvial aquifers below the floodplains of streams bordering the state at any point within 1/8 mile (660 feet) of any interior stream, shall cease when the flow of such interior stream is at or below the seven-day, one-in-ten year (7Q10) low flow, except as provided in 52.4(1)"d."

d. *Other conditions.* Notwithstanding 52.4(1)"a" to 52.4(1)"c," other conditions may be imposed that are necessary to ensure adequate protection of water supplies for ordinary household, livestock, and domestic uses, for fish and wildlife, for recreational use, for the preservation and enhancement of aesthetic values, and for other uses of a public nature.

e. *Replacement water exemption.* Rules 52.4(1)"a" to 52.4(1)"c" shall not apply to withdrawals for consumptive uses from an unconsolidated aquifer if the permittee discharges replacement water into such stream or tributary thereto at rates sufficient to offset the consumptive withdrawals and the department approves the method and location of discharge.

f. *Exemption until July 1, 1991, for certain users.* Paragraphs 52.4(1)"a," "b" and "c" shall not apply until July 1, 1991, to uses that were nonregulated prior to July 1, 1985, provided the application for said permit is postmarked or received prior to July 2, 1986.

52.4(2) *Withdrawals from unconsolidated aquifers adjacent to streams draining 50 or more square miles.* Withdrawals of water from unconsolidated aquifers adjacent to streams draining 50 or more square miles shall be subject to the following conditions:

a. *Protected flow restriction.* Withdrawals for consumptive uses at any point within 1/8 mile (660 feet) of a stream shall be considered withdrawals from the stream and shall cease when the stream is below the protected flow designated in rule 52.8(455B), except as provided in 52.4(2)"c" to 52.4(2)"f."

b. *Seven-day, one-in-ten year low flow restriction.* Withdrawals for consumptive uses at any point located between 1/8 mile (660 feet) and 1/4 mile (1320 feet) of a stream, other than a stream bordering the state, shall cease when the stream flow is at or below the seven-day, one-in-ten year low flow (7Q10 flow), except as provided in 52.4(2)"c" to 52.4(2)"f."

c. *Border stream-interior stream confluence restriction.* Withdrawals for consumptive uses from the alluvial aquifers below the floodplains of streams bordering the state at any point within 1/8 mile (660 feet) of any interior stream shall cease when the flow of such interior stream is at or below the seven-day, one-in-ten year (7Q10) low flow, except as provided in 52.4(2)"d."

d. *Other conditions.* Notwithstanding 52.4(2)"a" to 52.4(2)"c," other conditions may be imposed if they are necessary to ensure adequate protection of water supplies for ordinary household, livestock, and domestic uses, for fish and wildlife, for recreational use, for the preservation and the enhancement of aesthetic values, and for other uses of a public nature.

e. *Replacement water exemption.* Paragraphs 52.4(2)"a" to 52.4(2)"c" shall not apply to withdrawals for consumptive uses from an unconsolidated aquifer, if the permittee discharges replacement water into such stream or tributary thereto at rates sufficient to offset the consumptive withdrawals and the department approves the method and location of discharge.

f. *Exemptions from low flow restrictions.* The restrictions of 52.4(2)"a" to 52.4(2)"d" may be waived if the applicant or permittee can conclusively demonstrate by conducting appropriate tests that the withdrawal will not reduce the flow of the adjacent stream. Withdrawals pursuant to a permit, which was in effect on July 5, 1978, and authorized withdrawals for a consumptive use without a condition as of July 5, 1978, for maintenance of the protected flow, and withdrawals pursuant to the renewals of such permit shall be exempt from paragraphs 52.4(2)"a" to 52.4(2)"d" under the conditions for exemption specified in 52.3(2)"c" and 52.3(2)"d." Withdrawals eligible for the exemptions of 52.3(2)"c" and 52.3(2)"d," if shifted from a stream to an adjacent unconsolidated aquifer, shall not lose the exemptions granted under the conditions of 52.3(2)"c" and 52.3(2)"d."

g. *Exemption until July 1, 1991, for certain users.* Paragraphs 52.4(2)“a,” “b” and “c” shall not apply until July 1, 1991, to uses that were nonregulated prior to July 1, 1985, provided the application for said permit is postmarked or received prior to July 2, 1986.

52.4(3) *Withdrawals from the Jordan Sandstone Aquifer.* Withdrawals of water from the Jordan Sandstone Aquifer including the Prairie Du Chien formation and the St. Lawrence formation shall be subject to the following conditions:

a. *Two hundred gallon per minute (200 gpm) restriction on irrigation use and recreational and aesthetic use.* New withdrawals of water for irrigation and recreational and aesthetic uses shall not be in excess of 200 gallons per minute (200 gpm). Existing permits for irrigation and recreational and aesthetic uses that authorize withdrawal rates in excess of 200 gallons per minute (200 gpm) shall not be renewed if serious impact on other water withdrawals or on groundwater piezometric levels occur or are forecasted to occur.

b. *Two thousand gallon per minute (2000 gpm) restriction on industrial use and power generation use.* New withdrawals of water for industrial and power generation uses at one plant location shall not exceed 2,000 gallons per minute (2000 gpm).

c. *Two hundred 200 foot limit on the decline of groundwater piezometric levels.* The maximum collective long-term decline in groundwater piezometric levels in the Jordan Sandstone Aquifer in any high use area will not be permitted to exceed 200 feet from the 1977 baseline as determined from available records of the geological survey bureau.

d. *Variances.* Variances from the restrictions imposed by subrule 52.3(3) will be considered by the department through the appeal procedures in 567—Chapter 7.

52.4(4) *Withdrawals from the Dakota formation of the Cretaceous system.* The department may issue permits authorizing withdrawals of water from the Dakota formation of the Cretaceous system for all beneficial uses under the following conditions:

a. *Inventory of nearby wells by applicant.* An applicant who requests authorization for withdrawals of water at a maximum rate in excess of 200 gallons per minute shall conduct and submit an inventory of nearby wells as described in 567—paragraph 50.6(1)“b.”

b. *Observation wells.* In addition to the requirement of 52.6(3) for construction of an access port to allow measurement of water levels in each production well, an applicant or permittee may also be required to construct, maintain, and monitor observation wells as a condition of obtaining or keeping a water permit if the department, after consultation with the geological survey bureau, finds observation wells necessary to monitor the effects of the proposed or authorized withdrawals of water. Observation wells must be properly constructed and developed to respond to water level fluctuations in the aquifer.

c. *Prohibition of excessive water level declines.* If the department, after consultation with the geological survey bureau, determines that withdrawals of water from the Dakota formation of the Cretaceous system within a designated geographical area are causing water level declines which constitute a significant threat to the public interest in the availability of water for sustained beneficial use of the aquifer, renewals of permits shall be denied, and permits shall be modified or canceled in accordance with procedures in Iowa Code section 455B.271, as necessary to protect the aquifer for sustained use.

d. *Priorities in renewal, modification and cancellation of permits.* If permit renewals must be denied or if permits must be modified or canceled to prevent or abate water level declines which constitute a significant threat to the public interest in the availability of water for sustained beneficial use of the aquifer, withdrawals of water for community public water supplies and for agricultural research shall have priority over withdrawals of water for other regulated uses.

This rule is intended to implement Iowa Code sections 455B.261, 455B.264, 455B.266, 455B.271 and 455B.272.

***567—52.5(455B) Duration of permits for withdrawal or diversion of water.**

52.5(1) General. A permit granted shall remain as an appurtenance of the land described in the permit through the date specified in the permit and any extension of the permit or until an earlier date when the permit or its extension is canceled under 567—52.7(455B). Upon application for a permit prior to the termination date specified in the permit, a permit may be renewed by the department.

52.5(2) Permits for withdrawal or diversion of surface water. Permits for withdrawal or diversion of surface water shall be issued for ten years.

52.5(3) Permits for withdrawal of groundwater. Permits for withdrawal of groundwater shall be issued for a maximum period of ten years and may be granted for less than ten years if geological data on the capacity of the aquifer and the rate of its recharge are indeterminate.

This rule is intended to implement Iowa Code section 455B.265.

567—52.6(455B) Monitoring, recording and reporting of water use and effects on water source.

52.6(1) Water use reports. Each permittee shall submit to the department reports of water used, diverted, or stored and any other information deemed necessary by the department.

52.6(2) Reserved.

52.6(3) Requirement of access port for measurement of water levels in a regulated well. All new water permits which authorize withdrawals from wells shall require that each authorized production well be equipped with an access port having a minimum diameter of $\frac{3}{4}$ inch. The access port must be located to allow insertion of a steel tape or electric probe into the well casing for measurement of water levels.

52.6(4) Aquifer tests and observation wells. A permittee may be required to conduct a controlled aquifer test as a condition of keeping a water permit if the department, after consultation with the geological survey bureau, finds an aquifer test to be necessary to determine the effects which the authorized withdrawals have on other water uses. A controlled aquifer test, authorized by the department and supervised by a registered well driller, registered professional engineer or other designee of the department, may be required for an administrative resolution of a well interference conflict pursuant to 567—Chapter 54. The permittee may be required to construct, develop, and maintain adequate observation wells for use in an aquifer test and for subsequent water level measurements or water quality monitoring.

This rule is intended to implement Iowa Code sections 455B.261, 455B.264, 455B.266, 455B.268(1) and 455B.281.

567—52.7(455B) Modification, cancellation, and emergency suspension of permits.

52.7(1) General. Except as provided in subrule 52.7(2), after at least 30 days' written notice mailed to the permittee's last-known address by restricted certified mail or personal service, and an opportunity for the permittee to be heard in an evidentiary hearing conducted according to the contested case provisions of Iowa Code chapter 17A, the department may modify or cancel a water permit or any condition of a permit, notwithstanding any other rule, for any of the following:

a. Breach of permit condition or law. A condition of the permit has been breached or the law pertaining to the permit has been violated by the permittee or permittee's agent.

b. Nonuse. The permittee has failed for three consecutive years to use the water, and the permittee has not demonstrated adequate plans to use water within a reasonable time. Nonuse due to adequate rainfall shall not be a justification for cancellation of a permit. However, authorization to withdraw water from a proposed well may be canceled after notice to the permittee if the permittee has failed to construct the proposed well within three years after issuance of the permit.

*At its meeting held February 9, 1998, the Administrative Rules Review Committee delayed the effective date of February 18, 1998, until the adjournment of the 1998 Session of the General Assembly.

c. *Public health and safety.* Modification or cancellation is necessary to protect the public health and safety, to protect the public interests in lands and waters, or to prevent any manner of substantial injury to persons or property.

d. *Addition of conservation provisions.* Modification to include conservation provisions is deemed necessary by the department.

52.7(2) *Emergency suspension or restriction.* Notwithstanding any other rule or permit conditions, if the department finds that it is imperatively necessary in an emergency to protect from imminent danger or substantial injury the public health, welfare or safety, the public or private interest in lands or water, or to implement the priority allocation system pursuant to rule 52.10(455B), and these findings are incorporated into a written emergency order to the permittee, then the department may immediately suspend or restrict operations under a permit and require the permittee to take measures necessary to prevent or remedy the injury. The emergency order shall state an effective date appropriate to the situation which invoked the suspension or restriction and shall be immediately effective on that date unless stayed, modified, or vacated at a hearing before the commission or by the court. The emergency order shall remain in effect until a date specified in the order, unless the order is revoked or the expiration date modified, due to a change in the situation giving rise to the order or a decision following appeal.

This rule is intended to implement Iowa Code sections 455B.271, 455B.272 and 17A.18(3).

567—52.8(455B) Designated protected flows of streams.

52.8(1) *Purpose.* The protected flow is designed to protect and maintain adequate water supplies for ordinary household and livestock use; for fish and wildlife use; for recreational use; for in-stream wasteload assimilation and pollution control; for beneficial water use needs in the watershed; for preservation of aesthetic values; and for other uses of a public nature.

52.8(2) *Protected flow basis.* The protected flow is based in part on statistical information contained in “Low-Flow Characteristics of Iowa Streams,” (INRC Bulletin No. 9 (1958)), “Low-Flow Characteristics of Iowa Streams through 1966,” (INRC Bulletin No. 10 (1970)), and “Annual and Seasonal Low-Flow Characteristics of Iowa Streams,” (INRC Bulletin No. 13 (1976)).

52.8(3) *Protected flow levels.*

a. *At stream gaging stations.* The protected flow, expressed in cubic feet per second (cfs) at points on a stream with an official U.S. Geological Survey stream flow gage are listed in the table below.

River or Stream	The Protected Flow at U.S.G.S.	
	Stream Gaging Locations Gage Location	Protected Low Flow (CFS)
Beaver Creek	New Hartford	18
Big Creek	Mount Pleasant	2

River or Stream	Gage Location	Protected Low Flow (CFS)
Black Hawk Creek	Hudson	4.5
Boone River	Webster City	24
Boyer River	Logan	41
Cedar River	Conesville	1240
Cedar River	Cedar Rapids	937
Cedar River	Waterloo	710
Cedar River	Janesville	185
Cedar River	Charles City	100
Chariton River	Rathbun	2.9
Des Moines River	Keosauqua	350
Des Moines River	Ottumwa	300
Des Moines River	Tracy	300
Des Moines River	Des Moines (14th St.)	300
Des Moines River	Saylorville	200
Des Moines River	Stratford	310
Des Moines River	Fort Dodge	220
Des Moines River	Estherville	22
East Branch Iowa River	Klemme	6
East Fork Des Moines River	Dakota City	42
East Nishnabotna River	Red Oak	37
East Nishnabotna River	Atlantic	18
Floyd River	James	22
Iowa River	Wapello	1390
Iowa River	Lone Tree	150
Iowa River	Iowa City	150
Iowa River	Marengo	204
Iowa River	Marshalltown	104
Iowa River	Rowan	21
Little Cedar River	Ionia	28
Little Sioux River	Turin	200
Little Sioux River	Correctionville	106
Little Sioux River	Linn Grove	42
Lizard Creek	Clare	4.2
Maple River	Mapleton	50
Maquoketa River	Maquoketa	372
Middle Raccoon River	Panora	20
Middle River	Indianola	14.6
Monona-Harrison Ditch	Turin	27
Nishnabotna	Hamburg	128
Nodaway	Clarinda	15
North Raccoon River	Jefferson	82
North Raccoon River	Sac City	14
North River	Norwalk	5.6
North Skunk River	Sigourney	35
Raccoon River	Van Meter	190
Rock River	Rock Valley	26
Shell Rock River	Shell Rock	147
Shell Rock River	Northwood	23
Skunk River	Augusta	287
Soldier River	Pisgah	20

River or Stream	Gage Location	Protected Low Flow (CFS)
South Raccoon River	Redfield	58
South River	Ackworth	4.1
South Skunk River	Oskaloosa	94
South Skunk River	Ames (below Squaw Creek)	23
South Skunk River	Ames	4.8
Tarkio River	Stanton	0.3
Thompson River	Davis City	13
Turkey River	Garber	210
Upper Iowa River	Decorah	80
Walnut Creek	Hartwick	2
Wapsipinicon River	DeWitt	150
Wapsipinicon River	Independence	17
West Branch Floyd River	Struble	0.85
West Fork Cedar River	Finchford	66
West Fork Ditch	Hornick	12
West Nishnabotna River	Randolph	67
West Nishnabotna River	Hancock	49
White Breast Creek	Dallas	3.2
Winnebago River	Mason City	39

b. At stream locations other than gaging stations. The protected flow for points on a stream, other than at a U.S. Geological Survey gaging station, shall be established, as the need arises, by comparison of available stream flow data and basin characteristics.

This rule is intended to implement Iowa Code sections 455B.261, 455B.262 and 455B.267.

567—52.9(455B) Water conservation.

52.9(1) General. The purpose of water conservation requirements is to preserve the availability of water which is withdrawn for use, as opposed to protected flow provisions in rules 52.3(455B), 52.4(455B), and 52.8(455B) which preserve in stream flows.

Each permit granted after July 1, 1986, will include conditions requiring routine (day-to-day) conservation practices, and requiring emergency conservation practices after notification by the department. Existing permits may be modified to include conservation conditions pursuant to 52.7(1) "d," if deemed necessary by the department.

Only general provisions for routine conservation will be included in a permit, unless water is to be withdrawn from a protected water source designated in 567—Chapter 53 which has specific requirements for routine conservation. Permit conditions requiring routine conservation are primarily intended to raise awareness of water usage, develop a preparedness for periods of water shortages, and minimize waste of water.

General conditions involving emergency conservation will be included in all permits. Specific emergency conservation conditions may be included in a water use permit pursuant to subrule 52.9(2). If specific emergency conservation permit conditions are required, they will be based on a water conservation plan developed by the permittee or applicant, in accordance with subrule 52.9(3), and approved by the department.

The purpose of emergency conservation is to minimize consumptive use of water from a source experiencing a temporary shortage. Emergency conservation restrictions will be imposed only when water shortages are imminent or actually exist, in accordance with rule 52.10(455B). Long-term water shortages may be dealt with in the protected source rules, 567—Chapter 53.

52.9(2) *Applicability of emergency conservation.* Specific emergency conservation requirements may be made a condition of a water withdrawal permit if the proposed or permitted withdrawal could result in a significant consumptive use of water from a source which is likely to experience a short-term shortage.

A determination of the consumptive nature of a water use will be based on the hydrologic relationship of the sources of water withdrawal and wastewater discharge. If the source of withdrawal and discharge are the same, the consumptive use from the source will be considered to be the amount of water withdrawal minus the wastewater discharge. If the sources of withdrawal and discharge are hydrologically independent, then consumptive use from the source of withdrawal will be considered to be the total amount of withdrawal. Water sources which are in close hydrologic connection (e.g., an alluvial aquifer and adjacent stream) will be considered as the same source.

Specific emergency conservation requirements will not normally be included in a water use permit under any of the following conditions:

a. The proposed or existing permitted water use involves a consumptive use of less than 25,000 gallons per day from any water source during periods of substantial water shortage.

b. The proposed or permitted use is subject to protected stream flow conditions pursuant to rules 52.3(455B), 52.4(455B), and 52.8(455B).

c. The water source for the proposed or permitted use is from a surface water impoundment or purchased storage owned by the applicant or permittee.

d. The proposed or permitted use is unable to conserve water without substantially disrupting or ceasing an essential activity which requires water, such as operating a steam electric generating plant, watering livestock, or operating a commercial laundry.

e. The proposed or permitted withdrawal is from a source of water which is not likely to experience a substantial short-term water shortage including, but not limited to, the Missouri and Mississippi Rivers and adjacent alluvial aquifers, the Jordan Sandstone Aquifer, and the Iowa Great Lakes.

f. The source of water is or will be utilized by only the permitted or proposed water user and withdrawal from the source for the permitted or proposed use has no potential for affecting other water uses.

52.9(3) *Water conservation plans.* Unless specific emergency conservation permit conditions are not required in accordance with subrule 52.9(2), the applicant or permittee shall submit a water conservation plan with an application for a new water use permit or renewal of an existing permit. The department may also require a water conservation plan to be submitted by any existing permittee after a minimum of 90 days' notice. If an applicant is in doubt as to whether or not the application requires a water conservation plan, the department should be contacted and provided with a description of the proposed source of water, intended use, and desired amount and rate of withdrawal. The department will then make a determination of whether or not a conservation plan is necessary. If a water conservation plan is required with an application for permit renewal, the department will notify the permittee at least 120 days prior to expiration of the permit.

Water conservation plans shall describe the measures to be used to achieve water conservation and estimate water savings from each measure. Water conservation plans must contain the following information, as applicable, to be approved by the department.

a. General provisions. The following information shall be included in all water conservation plans:

(1) A description of each source of water withdrawal (i.e., well or surface water intake) including the location, well depth, pumping rate, and date of installation.

(2) A description of wastewater discharge including the location and discharge frequency.

- (3) Monthly withdrawal amounts from each source for the past five years.
 - (4) Monthly total water withdrawal amount for the past five years.
 - (5) Monthly total wastewater discharge amount for the past five years.
 - (6) A quarterly breakdown, by the water use categories in subrule 52.10(3), of total water use and estimated consumptive water use over the past five years.
 - (7) A description of any previous water shortage problems, including the cause, frequency, other affected parties, and how they were resolved.
 - (8) Identification of nearby water supplies which are potentially affected by or could potentially affect the proposed or permitted withdrawal.
 - (9) A means of identifying impending water shortage problems (e.g., water level in wells or a reservoir decline to a certain level or stream flows fall to a certain rate).
- b. Routine conservation provisions.* Consideration of routine conservation is encouraged although it is not normally required in a water conservation plan. Documented water savings from routine conservation measures will be credited towards emergency conservation requirements. Suggested routine conservation measures include:
- (1) Use of water-saving plumbing devices or required use of these devices in building codes.
 - (2) Scheduling irrigation to minimize peak water use.
 - (3) Use of efficient irrigation techniques.
 - (4) Implementing programs to minimize lost water, such as piping leaks.
 - (5) Use of metered water billing by public water supplies.
 - (6) Utilizing best commercially available technology to optimize efficiency of water use.
 - (7) Implementing recycling and reuse practices.
 - (8) Developing alternative water sources which are not susceptible to shortages.
 - (9) Increasing rates charged for water or eliminating reduced rates for large users.
- c. Emergency conservation provisions.* Water conservation plans shall contain emergency conservation provisions in accordance with the following criteria.
- (1) General. The consumptive nature of a water use, as described in subrule 52.9(2) and determined from information required in 52.9(3) "a," shall be reduced by at least 50 percent over similar periods of normal use. This criterion does not apply to irrigation use. If this requirement cannot be met, justification for nonattainment shall be provided which must include documentation that an activity involving water use is essential and demonstration of use of best commercially available technology. The department may then grant variances on a case-by-case basis.
- Measures which will be credited for emergency conservation include, but are not limited to, the following: documented water savings resulting from routine water conservation measures; shutdown, postponement, or curtailment of nonessential activities involving water use; switching to nonaffected sources for water supply; mitigation of consumptive uses by direct discharge of stored water or water from a nonaffected source to the affected water source; acquisition and retirement of existing consumptive uses from the affected water source (credit for retirement of existing consumptive uses will be given only for the amount authorized during periods when emergency conservation is required); and imposing surcharges on water use during periods of shortage.
- (2) Public water supplies. At a minimum, emergency water conservation plans for public water supplies must include provisions for restricting outside, consumptive water use.

(3) Irrigation water use. Emergency water conservation plans for irrigation water uses shall limit irrigation water use to the equivalent of one inch per irrigated acre per week for general farm crops and specialty crops, unless the water conservation plan contains other mitigating provisions such as listed in 52.9(3)“c”(1) above.

Water conservation plans shall also address irrigation scheduling. Irrigation scheduling should attempt to provide approximately equal water use on each day of an irrigation cycle. Irrigation scheduling may be done in cooperation with other nearby irrigators who utilize the same water source.

This rule is intended to implement Iowa Code sections 455B.262 and 455B.265.

567—52.10(455B) Priority allocation restrictions.

52.10(1) General. After any event described in subrule 52.10(2) has occurred, the department will investigate and, if appropriate, may restrict water use according to the priority allocation plan as described in subrule 52.10(3). Prior to imposing the priority allocation plan, the department will normally require emergency conservation measures to be taken by existing permittees. The department will not normally require emergency conservation until a shortage of water is imminent and will not normally impose the priority allocation plan until an actual impairment of water usage exists.

The department will notify existing permittees of any emergency restriction or suspension of water use by written order pursuant to subrule 52.7(2). A permittee will be required to maintain daily records of water withdrawal and wastewater discharge, if any, while the emergency order is in effect. These records shall be available for inspection by the department to verify compliance with the order.

Suspension or restriction of water usage applicable to otherwise nonregulated water users shall be by emergency order of the director which the department shall cause to be published in local newspapers of general circulation and broadcast by local media. The emergency order shall state an effective date of the suspension or restriction and shall be immediately effective on that date unless stayed, modified or vacated at a hearing before the commission or by a court.

The department will lift the suspension or restriction of water usage, as deemed appropriate, when evidence of sustained, improved conditions is available.

The department will not impose a suspension of water or a further restriction, other than emergency conservation, on the uses of water provided in paragraphs 52.10(3)“g” through “i” or on uses of water pursuant to a contract with the state as provided in Iowa Code subsections 455B.263(5) and 455B.263(6) unless the governor has issued a proclamation, as described in paragraph 52.10(2)“b.” Notwithstanding such proclamation, in the case of water use under a contract with the state pursuant to Iowa Code subsections 455B.263(5) and 455B.263(6) and in effect prior to March 5, 1985, restriction or suspension measures will be limited to emergency conservation.

52.10(2) Triggering events. The department may implement the priority allocation plan following the occurrence of any of the following:

a. Receipt of a petition by a governmental subdivision or 25 persons that the priority allocation plan be implemented due to a substantial local water shortage adversely affecting their water supply.

b. Issuance by the governor of a proclamation of a disaster emergency due to a drought or other event affecting water resources of the state.

c. Determination by the department in conjunction with the office of disaster services of a local crisis which affects availability of water.

d. Receipt of information from a state or federal natural resource, research or climatological agency indicating that a drought of local or state magnitude is imminent. As a general guideline, emergency conservation or priority allocation restrictions will not be imposed on withdrawals from a surface stream or adjacent alluvial aquifer when stream flow is above the seven-day, one-in-ten-year low-flow level.

52.10(3) *Priority allocation plan.* Notwithstanding a person's possession of a permit or the person's use of water being a nonregulated use, the department may suspend or restrict usage of water by category of use on a local or statewide basis in the following order:

- a. Water conveyed across state boundaries.
 - b. Water used primarily for recreational or aesthetic purposes.
 - c. Uses of water for the irrigation of hay, corn, soybeans, oats, grain sorghum or wheat.
 - d. Uses of water for the irrigation of crops other than hay, corn, soybeans, oats, grain sorghum or wheat.
 - e. Uses of water for manufacturing or other industrial processes.
 - f. Uses of water for generation of electrical power for public consumption.
 - g. Uses of water for livestock production.
 - h. Uses of water for human consumption and sanitation supplied by rural water districts, municipal water systems, or other public water supplies.
 - i. Uses of water for human consumption and sanitation supplied by a private water supply.
- This rule is intended to implement Iowa Code section 455B.266.

567—52.11(455B) *Plugging of abandoned wells.* When authorization for withdrawals of water from a well expires without renewal, the permittee shall be responsible for plugging the well in accordance with Iowa Geological Survey Public Information Circular #1, "Well Plugging Procedures," or by an alternate method approved by the department for prevention of groundwater pollution. However, the department shall grant a variance from the requirement that the well be plugged if the permittee demonstrates an intent to maintain the well as a source of water for a nonregulated use or if the department determines that the well should be maintained as an observation well.

This rule is intended to implement Iowa Code sections 455B.262 and 455B.263 to 455B.279(2).

567—52.12 to 52.19 Reserved.

567—52.20(455B) *Water storage permits.*

52.20(1) *Beneficial use and protected flow criteria.* A permit for storage of impounded water shall be based on the following findings:

- a. The proposed storage is for a specified beneficial use such as human or livestock water supply, recreation, aesthetic value, erosion control, or low-flow augmentation.
- b. The impounding structure can be operated in a manner which will not adversely affect any applicable protected flow in the impounded stream.
- c. The construction, operation, and maintenance of the impounding structure has been approved by the department.

52.20(2) *Duration of permit.* A permit for storage of water impounded by a dam other than a major structure may be granted for the life of the structure. A permit for storage of water impounded by a major structure may be granted for any period not exceeding ten years.

52.20(3) *Conditions of approval for storage of water impounded by a major structure.* A permit authorizing storage of water impounded by a major structure as defined in 567—Chapter 70 shall include the following conditions:

- a. Storage of water shall not commence until construction of the dam as approved by the department is completed and accepted by the department pursuant to 567—paragraph 74.21(1)"c." Until construction of the dam is accepted the gate on the low level or dewatering outlet shall remain open.

b. The permittee shall notify the department of any proposed change in the ownership of any part of the dam, or of any change in the identity of the person responsible for its construction, operation, and maintenance. For dams built under easement where the property owner does not have primary responsibility for construction, operation, and maintenance, notice of proposed change in ownership is not required if the identity of the responsible person does not change.

c. The permittee shall permit inspections of the dam in accordance with 567—Chapter 74.

52.20(4) *Criteria for renewal of water storage permits.* In addition to considering the criteria in subrule 52.9(1), the department shall review its most recent dam safety inspection report as part of the review of an application for renewal of a water storage permit and shall consider the following additional factors:

a. The physical condition of the dam and appurtenant structures as related to safety of the dam.

b. The permittee's record of compliance with the conditions of the expiring storage permit and the approval order which authorized construction, use and maintenance of the dam.

c. Changed circumstances including upstream or downstream development which may affect the hazard classification of the dam or its ability to function as intended.

52.20(5) *Conditions of cancellation or suspension of water storage permits.* When a water storage permit is canceled or suspended pursuant to Iowa Code section 455B.271, the gate on the low level or dewatering outlet shall be opened and the impoundment drained in accordance with the procedures in 567—Chapter 74 and the impoundment shall remain drained unless storage of water is again authorized. Additional measures including breaching of the dam may be required if necessary to reduce risk of damage associated with dam failure.

This rule is intended to implement Iowa Code sections 455B.262, 455B.264, 455B.265, 455B.267, 455B.270, 455B.271, 455B.274 and 455B.278.

***567—52.21(455B) Permits to divert water to an agricultural drainage well.**

52.21(1) *Approval criteria.* An application for a permit to divert water or other material to an aquifer by means of an agricultural drainage well shall not be approved if the agricultural drainage well is located within a designated agricultural drainage well area or the drainage well is to be constructed after February 18, 1998. An initial permit for the diversion of water or any material to an aquifer by means of an agricultural drainage well shall be based on a finding that the following criteria are satisfied. Renewal of such a permit shall be made only upon a finding that such owners, lessees, easement holders, or option holders are in compliance with the conditions of the initial permit or any permit issued thereafter and that the agricultural drainage well meets applicable approval criteria, including paragraph 52.21(1)“c.”

a. The application for the permit has been submitted by or on behalf of all owners, lessees, easement holders, or option holders of all lands which are drained by the agricultural drainage well.

b. There is reasonable assurance that the applicant(s) can minimize the contamination potential to the aquifer through closure of surface water intakes, elimination of any septic system connections, and other appropriate management practices including nutrient and pesticide management as required under subrule 52.21(2).

c. There are no economically and physically viable alternatives to the use of the agricultural drainage well. The department will consult with the division of soil conservation, department of agriculture and land stewardship, and other parties with drainage expertise as necessary to determine if viable alternatives exist. In determining whether a viable alternative exists, the department will consider all relevant factors, including the following:

(1) The impact that closure of the ADW would have on lands drained by the agricultural drainage well if an alternative drainage system is not provided.

*At its meeting held February 9, 1998, the Administrative Rules Review Committee delayed the effective date of February 18, 1998, until the adjournment of the 1998 Session of the General Assembly.

(2) The cost and feasibility of providing an alternative outlet. Alternative drainage systems constructed under the provisions of the alternative drainage system assistance program administered by the division of soil conservation will be considered as a viable alternative to the use of the agricultural drainage well.

(3) The availability of public assistance for the construction of an alternate outlet or for compensation for loss of productivity on lands drained by the agricultural drainage well.

(4) The results of the engineering study provided for under 52.21(2) "l."

52.21(2) Approval conditions. Permits granted for the diversion of water or any material to an aquifer by means of an agricultural drainage well shall be subject to the following conditions as appropriate.

a. Surface water intakes. All surface water intakes shall be removed by December 31, 2001. Additional tile lines may be added to compensate for removal of surface water intakes provided the replacement tile does not increase the size of the agricultural drainage well area. Replacement tiles shall generally conform with the Natural Resources Conservation Services Tile Intake Replacement Interim Standard 980.

b. Cisterns. Cisterns shall be sealed or otherwise modified as necessary by December 31, 2001, to prevent direct entry of surface water. Compliance with the Natural Resources Conservation Services Wellhead Protection Interim Standard 981 will be considered as complying with this condition. Alternatives to the interim standard may be allowed with department approval.

c. Access/ventilation. The agricultural drainage well or its cistern shall be provided with a locked cover to prevent unauthorized access. If the agricultural drainage well and the related drainage system is ventilated, ventilation shall be accomplished in a manner that will not allow surface water to enter the agricultural drainage well.

d. Repair and maintenance. The agricultural drainage well and the associated drainage system may be repaired and maintained as needed to maintain drainage efficiency. The drainage well and associated tile drainage system shall be maintained in a condition so as to prevent surface water which has not filtered through the soil profile from entering the drainage well.

e. Modifications of drainage well. The agricultural drainage well shall not be modified without department approval. The related drainage system may be modified without department approval providing the modifications do not enlarge the agricultural drainage well area. Construction of new surface water intakes is not allowed.

f. Closure. If the permittee discontinues use of the agricultural drainage well, the department shall be notified and closure shall be made in accordance with 567—Chapter 39 or by an alternative method approved by the department. The permit will be revoked upon submission of proof that the drainage well was properly closed.

g. Modification or cancellation of permit. As provided in 567—52.7(455B), the department may modify or cancel the permit or require the permittee to take other actions to protect the public health and safety, to protect the public interest in lands and waters, or to prevent any manner of substantial injury to persons or property.

h. Waste systems. Effluent from wastewater treatment or storage systems, including on-site wastewater treatment and disposal systems such as septic systems, shall not be allowed to directly enter the agricultural drainage well or associated tile drainage system. Runoff controls consistent with Chapter 65 requirements and guidance may be required for feedlots that discharge across lands drained by an agricultural drainage well to control manure nitrogen and to eliminate the potential for direct entry of animal wastes into an agricultural drainage well or its drainage system.

i. Nitrogen management. The application of nitrogen from all sources, including manure, legumes, and commercial fertilizers, on lands within an agricultural drainage well drainage area shall not exceed the nitrogen use levels necessary to obtain optimum crop yields for the crop being grown.

j. Application of liquid animal wastes. Application of liquid animal waste to lands drained by the agricultural drainage well shall be done in a manner that will not result in a discharge of the waste to the drainage well or associated drainage system.

k. Application of pesticides. The application of pesticides on lands within the agricultural drainage well area shall be in accordance with the provisions of Iowa Code chapter 206 and rules adopted pursuant to chapter 206.

l. Alternatives to the use of the agricultural drainage well. Prior to reissuance of a permit for the continued use of an agricultural drainage well, the permittee(s) shall conduct an engineering study of the physical and economic feasibility of alternatives to the continued use of the agricultural drainage well. The study shall comply with the provisions of Iowa Code chapter 542B regarding certification by a licensed professional engineer. The results of the study shall be submitted to the department at least one year prior to a request to renew a permit.

52.21(3) Closure of existing agricultural drainage wells.

a. Agricultural drainage wells within a designated agricultural drainage well area. A permit shall not be granted for the diversion of water or other material into an aquifer by means of an agricultural drainage well if the drainage well is located within a designated agricultural drainage well area. All existing agricultural drainage wells within a designated agricultural drainage well area shall be closed by December 31, 1999. Closure shall be in accordance with 567—Chapter 39, Requirements for properly plugging abandoned wells, or by an alternative method approved by the department. Cisterns shall be filled in or removed and filled in with earth or other suitable material and any tile lines shall be removed for a distance of 10 feet around the wellhead or, alternatively, be replaced with non-perforated pipe. The owner of the land on which the agricultural drainage well is located shall provide the department with notice that the well has been closed in accordance with the requirements of this paragraph. Agricultural drainage wells that have been properly closed will no longer be considered an agricultural drainage well by the department.

b. Other agricultural drainage wells. Existing agricultural drainage wells that have not been authorized by permit by December 31, 1999, shall be closed by that date unless the department has granted a waiver to the closure requirements. The closure procedures shall be as specified in 52.21(3) “a.”

This rule is intended to implement Iowa Code Supplement chapter 455I.

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